



RE: December RIN Call - 'E-cigarette' Issue; Additional Followup from MN
Burman, Joshua (MPCA)

to:

[REDACTED]

[REDACTED]

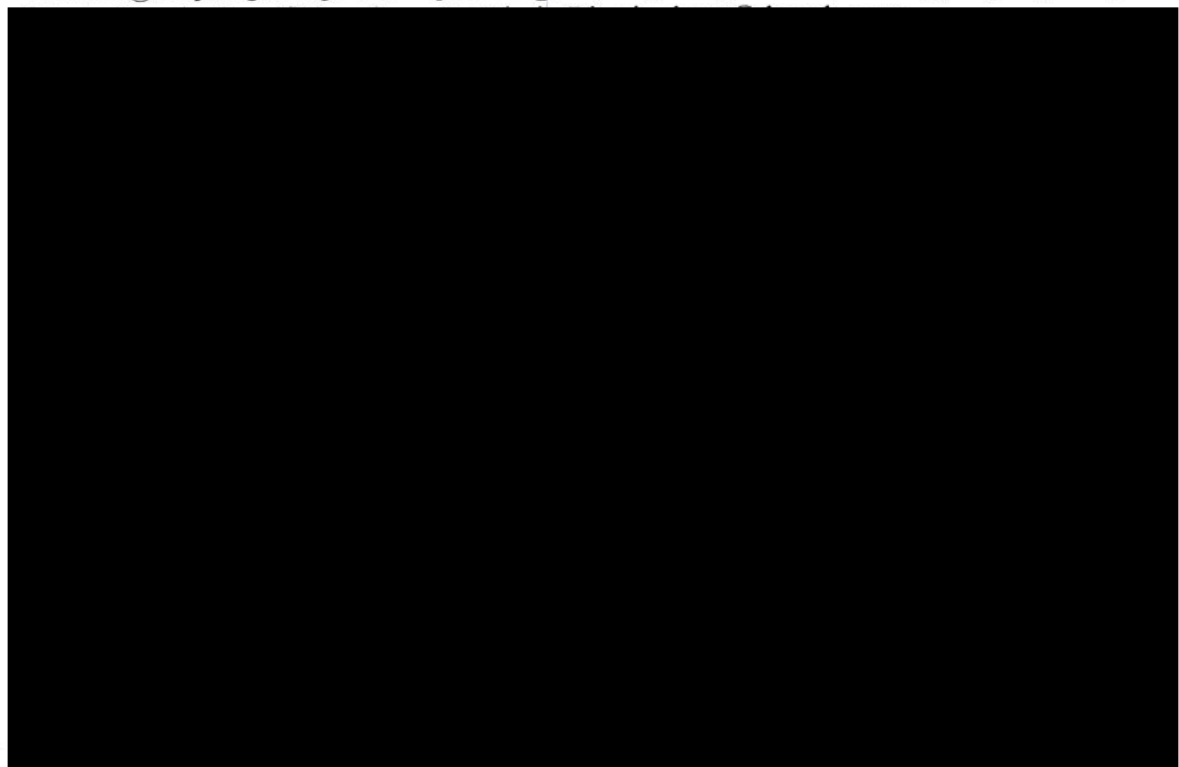
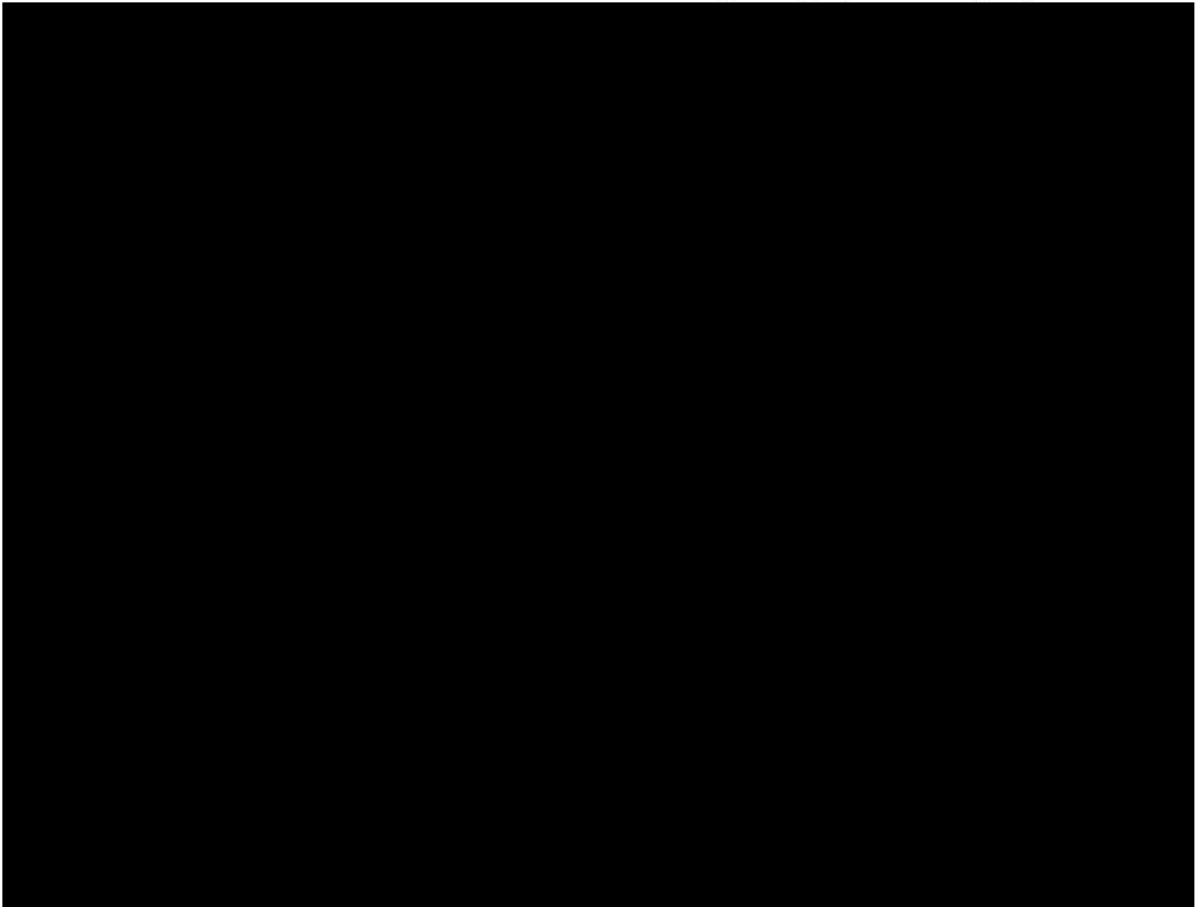
12/06/2012 01:27 AM

Cc:

[REDACTED]

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From: "Burman, Joshua (MPCA)" <joshua.burman@state.mn.us> Sort List...



[REDACTED]

"

[REDACTED]

us"
on,

Cc: [REDACTED]



Dear Bill and HW Staff:

*Please also see the asterisked section below after the response to your questions for an important point I did not bring up earlier.

Potentially regulating E-cigarettes as 'manufactured articles' differently from separate cartridges of nicotine solution as commercial chemical products is consistent with EPA's apparent intent (as the MPCA understands it - I do not profess to speak for EPA!) that chemicals alone be regulated differently from devices which happen to include that chemical to perform their function. The best example I would consider is liquid mercury. When alone, or held in an item solely for the purpose of containment, and disposed unused it is unquestionably a U151 Listed hazardous waste. Yet when held in a glass tube constructed to indicate changes in ambient temperature as a thermometer, and if disposed in that tube, the waste being disposed ceases to be the mercury alone, and becomes the thermometer device, which no longer meets the EPA-intended definition of a commercial chemical product, but is now considered a disposed 'manufactured article'. (In this case, the difference may seem moot, since the thermometer is then still a D009 Characteristic hazardous waste, so the required end management may be the same, but the key is that it is no longer a Listed waste.)

In the case of nicotine-containing materials, the effect of the List definition could be decisive, since there is no corresponding nicotine Characteristic to 'save' it if it does not meet the intended definition of a commercial chemical product.

The removable cartridges, on the other hand, primary purpose is only to contain and hold the nicotine solution. They do not perform the other functions that an assembled E-cigarette does (vaporization, metering, visual indication, airflow sensing, etc). Thus, I believe they could be considered solely a container, akin to a bottle or vial, and thus their contents to be a commercial chemical product potentially subject to the P- or U-Lists.

Therefore, the identity and makeup of the material being disposed would likely be considered by Minnesota to control.

- E-cigarettes, either disposable or reusable, disposed assembled would appear to be eligible to be considered manufactured articles.
 - Removal and separate management of any removable cartridges would not seem to be required if the E-cigarette was intended to be disposed whole.
 - Cartridges disposed alone, however, are not e-cigarettes and would appear to be subjectable to more stringent management, or at least evaluation.
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*That being said, I would like to raise one potentially critical final point, however, that I did not raise in my initial e-mail or in today's RIN Meeting, but should have:

The question of the status of the nicotine in the nicotine solution/'smoking liquid' itself.

Commercial chemical products are subject to the P- and U-Lists, under EPA interpretation, in turn adopted by most states, if they are:

- disposed unused; and
- the Listed commercial chemical product is the sole active ingredient in the product/waste.

The smoking liquid contained in E-cigarettes and marketed for refill of them certainly contains nicotine. However, the marketing for E-cigarettes (here, essentially for the liquid) emphasizes the unique flavors produced by each different brand.

These flavors are generated by atomization of various chemicals, including menthol, eithol malto, and many other compounds simultaneously with the nicotine and its carrier liquid.

Since these other chemicals are mixed with the nicotine in the 'smoking liquid' (also apparently known as 'e-juice'), and perform at least some of the function of the product (if we consider that the function of the product is an artificial sensation of smoking or the generation of a tobacco smoke-like vapor, which is how the DC Court of Appeals in the FDA case viewed it), a credible argument could likely be made that the nicotine is not the sole active ingredient in the solution, and therefore the nicotine does not meet the required definition of the P-List, and the solution when disposed is not a P075 acute hazardous waste.

I should have realized that before the RIN Meeting. My apologies for not identifying it earlier.

Whether any elements of E-cigarettes, including refill bottles and modular cartridges, are P-Listed acute hazardous wastes, therefore, may need to be decided by each State depending on its interpretation of whether the flavor chemicals in the nicotine solution perform a function of the product (and are therefore active ingredients).

**There does remain one other consideration - whether, nicotine aside, any components of E-cigarettes would be Characteristic hazardous wastes.

I do not believe they would be, but each State may need to consider that question for itself.

The potentially hazardous components of an E-cigarette, apart from the liquid solution, would be the battery (possible D003) and any printed circuit board (possible D008/D006).

Minnesota has not examined a substantial number of E-cigarette brands, but of those it is aware, some do appear to contain a very small circuit board, while others do not.

Most E-cigarettes appear to use lithium-based batteries, with voltages ranging from 3V-6V.

Minnesota has made a state-specific decision that lithium batteries <9V are not likely to display the Reactivity Characteristic from either water reaction or electrical potential, so Minnesota would not consider the batteries to be hazardous waste, however each of your States may view such small lithium batteries differently.

Similarly, while Minnesota does regulate electronic wastes (E-waste) as assumed D008 hazardous wastes, the extremely small size of any circuit boards contained in E-cigarettes may lead Minnesota to determine them to not be E-wastes, either (the MPCA has not really looked at that question yet, so my statement here is of a possibility or likelihood).

D008
Lead

Joshua Burman

HW/PCB Compliance
MPCA Mankato Office

From: William Yeman [mailto:wwyeman@gw.dec.state.ny.us]

Sent: Wednesday, December 05, 2012 22:31

To: [REDACTED]

[REDACTED]

[REDACTED]

Subject: RE: December RIN Cail - 'E-cigarette' Issue; Followup from MN

Joshua,

It just seems inconsistent to say that the Ecig is not P-listed, but that a nicotine cartridge is (when discarded).

Would you require that the nicotine cartridge be removed from the unused Ecig before disposal?

Thanks,
 Bill Yeman
 NYSDEC
 Albany NY
wxyeman@gw.dec.state.ny.us
 518-402-9594 (desk #)

>>> "Burman, Joshua (MPCA)" <joshua.burman@state.mn.us> 12/05/12 12:09 PM >>>

Dear Jim and HW Staff:

Regarding the issue of the status of 'E-cigarettes' and whether they could be considered a P-Listed acute hazardous waste when disposed unused by a retailer/distributor/manufacture, or whether they would be considered a 'manufactured article' not meeting the definition of the P-List and therefore hazardous only if Characteristic (which it appears they would not be), Minnesota would like to clarify the potential applicability of the question.

Based on Minnesota's observations, 'E-cigarettes' (Ecigs as commonly known in retail and which I abbreviation I will use for brevity in this discussion) are commonly sold and thus might be disposed in three varieties:

- (a) nonrefillable disposable units which contain a sealed reservoir or sponge of nicotine solution and which are usable for the equivalent of 20-30 cigarettes;
- (b) modular units which consist of a reusable battery/atomizer and a replaceable single-use nicotine solution cartridge or single-use combination nicotine cartridge and atomizer;
- (c) refillable units which are refilled with nicotine solution from a disposable bottle/vial.

Applying the original discussion from EPA of the intended scope of the definition of a 'commercial chemical product' [40 FR 78541], the references to the 'manufactured article' exception offered by EPA in determining the status of batteries and thermometers [published as RCRA Online documents #12120 and #13310, respectively], and the extended discussion by EPA in applying this concept to transdermal nicotine patches [published as RCRA Online document #14817 and incorporating discussion from 66 FR 27266], Minnesota would likely consider that the Ecig units themselves would meet the intended exception of 'manufactured articles' and would not be P075 acute hazardous wastes when disposed. While the units do function as chemical delivery media parallel to transdermal patches and chewing gums, they are also constructed to perform several other related but separate functions, including tactile and visual sensory stimuli. They are also generically not known or referred to as nicotine, but instead as the artificial equivalent to a manufactured product which contains nicotine as a constituent, but not as the whole; i.e. 'cigarettes'. They are thus more similar to batteries and thermometers than to containers of a commercial chemical product.

This interpretation is incidentally supported, though not in any way dependent on, Federal case law classifying Ecigs as subject to regulation not as drug delivery devices by the U.S. Food & Drug Administration (FDA), but as tobacco product equivalents regulated jointly by the FDA and the U.S. Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) [Sottera, Inc., Doing Business as NJOY v. FDA, No.10-5032].

However, Minnesota also would likely consider that the replaceable single-use nicotine cartridges from Ecig variety b) and the disposable nicotine solution bottles/vials from Ecig variety c) **would** meet the definition of containers which hold/held an unused commercial chemical product and therefore would be P075 acute hazardous wastes when disposed by other than a household. These cartridges' and bottles' primary purpose is simply to hold the unused nicotine solution, and they are in almost all ways exactly equivalent to any other type of purpose-shaped and marketed commercial chemical product container. In addition, they are currently

marketed and referred to as nicotine solution or its common equivalent, 'smoking liquid'.

I will be in the field, but will try to attend today's RIN meeting via cell phone.

Thanks:

Joshua Burman
HW/PCB Compliance
MPCA Mankato Office

From: OLeary.Jim@epamail.epa.gov [mailto:OLEary.Jim@epamail.epa.gov]

Sent: Tuesday, December 04, 2012 06:22

To: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
Cc: [REDACTED]

Subject: December RIN Call - tomorrow at 2 PM EST

Hello everyone.

Call-in number 1-866-299-3188 followed by 703-308-8827.

We have a full agenda. At least I think we do. **Minutes from last month's call to follow later today.**

Topic: Summary of EPA RCRA Rulemaking activities (See attached.)

This is a carryover from a request made last month by Tennessee. EPA Headquarters will provide the RIN with updates on a series of rules we are working on. We update you periodically on a rule making effort here and there, such as the E-manifest effort in October, but I thought Tennessee's suggestion was a good one in that we could devote most of a session to discussing what we are up to. I'm hoping to get staff who are actually working on these rules to provide you with the updates.

P.S. The attached is an update of the presentation I made at the Northeast Waste Management Officials Association (NEWMOA) last June.

Topic: Status of legacy wastes extracted for subsequent use (Tennessee)

Description: A company is currently cleaning up legacy wastes at a site in Copperhill, Tennessee. The majority of the wastes materials being removed and sent for recycling (the materials are sold) to recover metals fall under the Bevill exclusion. However, the materials in ponds from the Wastewater Treatment Plant (WWTP) do not fall under the Bevill exclusion. Some of the material is pre-RCRA. The last material entered in 1992. Since 1992 the material has been untouched. The material is not a listed waste and clearly meets the criteria for being classified as a sludge. The materials in the ponds are an engulfment hazard (like quicksand) and for future uses of the site, it would be best to remove the materials or stabilize them.

Question: Is there any provision for when a waste has been disposed of and has remained in place for two decades or more, that when the material is extracted it can be considered a new commercial product (mining the landfill)? Or, could we consider the extracted material to be a non-listed sludge that is being extracted for commercial use (to be sold) and as long as 75% or more of what is extracted is sold in the calendar year, it would be excluded from being a solid waste?

Topic: E-cigarettes (Florida)

Glen Perrigan

a. E-waste recycler is receiving e-cigarettes (containing nicotine) as off spec unused product being discarded by the manufacturer, distributor or retailer.

b. Are e-cigarettes a listed hazardous waste because of the presence of nicotine?

i. Is the nicotine in e-cigarettes the sole active ingredient in a commercial chemical product and as such managed as P075?

c. Do e-cigarettes meet the definition of a “manufactured article” and thus excluded as a commercial chemical product and would only be hazardous if they exhibit a characteristic?

Topic: Automated Penalty Calculation Forms (Florida)

a. Have states or EPA developed automated penalty computation forms/spreadsheets (for penalty matrix, potential for harm, multi day, economic benefit, adjustments)?

(See attached file: December 2012 RIN Presentation 120312.pptx)

Jim O'Leary
EPA, Office of Resource Conservation and Recovery
Materials Recovery and Waste Management Division
Telephone: (703) 308-8827
Fax: (703) 308-0514
E-mail: oleary.jim@epa.gov